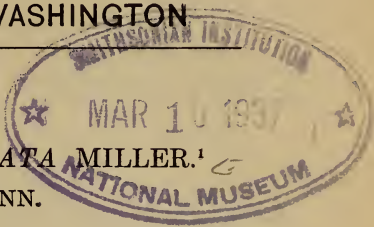


4.0673

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



THE STATUS OF *HYLA EVITTATA* MILLER.¹

BY EMMETT REID DUNN.

Hyla evittata was described by Gerrit Miller in 1899 (Proc. Biol. Soc. Washington 13, p. 75). The type, U. S. N. M. 26291, came from Four Mile Run, about halfway between Alexandria, Va., and Washington, D. C. It was recorded from Georgetown, Cecil Co., Md., by Fowler in 1915 (Copeia 22, p. 38). Stejneger and Barbour add New Jersey in the first edition of the Check List (1917, p. 33). New Jersey appeared in the range in the second edition of the Check List (1923, p. 30), but does not appear in the third. It was dropped at my insistence since no other printed reference has ever appeared recording the form from New Jersey, no specimens from New Jersey have been seen by Stejneger, Barbour, or myself, and the authors of the Check List are at present unable to explain why New Jersey was added to the range in the first place.

In 1918, after examination of the then available material from Virginia, I (Copeia 53, p. 21) referred to *evittata* as a race of *cinerea* (*Calamita cinereus* Schneider, 1799, Hist. Amph. 1, p. 174, type locality Carolina). This suggestion was adopted in the second edition of the Check List (1923, p. 30). I referred all Virginia specimens of the species to the race *evittata*. It is thus scarcely justifiable to say, as do Noble and Hassler (1936, Copeia 1, p. 63) that Wright and Wright (1933, Handbook of Frogs and Toads) "assumed" the respective ranges of *evittata* and *cinerea* to be what they had been stated to be by previous authors.

Noble and Hassler record *Hyla cinerea cinerea* from Cove Point and Solomon's Island, Calvert Co., Md., on the basis of 32 specimens. The whole matter is thus open to reconsideration, and I have examined the entire National Museum collection from South Carolina north, the Philadelphia Academy collection from the same area, 23 specimens from Mount Vernon, Va., in the Museum of Comparative Zoology, collected by myself, and 21 specimens from Cove Point collected by Noble and Hassler. The total material amounts to 126 specimens from Virginia and Maryland.

Miller separated *evittata* from *cinerea* on the absence of the lateral light stripe in the former, as his name implies. He also says that *evittata* has a

¹Contribution from the Department of Biology Haverford College, No. 33.

broader head, and higher snout. Noble and Hassler say, and I agree, that the two can not be separated by head width. They say that *evittata* has "a more vertical, less sloping profile to the snout." The type, and topotypes, of *evittata* can not, with any degree of certainty, be separated from Carolina *cinerea* on this basis. Differences of preservation tend to obscure differences in this character that may have existed in life. Furthermore, in many species of Hylidae the male has a sloping snout and the female a blunt one, and this may be the case in *cinerea* and in *evittata*.

The status of the two really depends on the lateral stripe. This may be absent in Carolina (U. S. N. M. 75122 from Charleston). It may be fully developed in Maryland (U. S. N. M. 92598 from Cambridge, Dorchester Co.) or in the Potomac (U. S. N. M. 66208 from Four Mile Run).

In the area of the tidewater Potomac from Cedar Point and Quantico to Four Mile Run, out of a total of 53 specimens 35 have no trace of a lateral stripe, 4 have a trace anteriorly, 4 have a stripe reaching to the appressed elbow, 1 has a stripe to midbody, and 9 have a complete stripe to groin. In this area a considerable majority have no stripe at all, and if those with stripes not reaching the midbody be considered *evittata*, 81% of this population is of the *evittata* type, a percentage surely sufficient for racial recognition. In my own Mt. Vernon collection 19 were without any trace of stripe, three had a trace, and in one the stripe reached the level of the appressed elbow.

Of thirteen specimens from Hampton, Virginia Beach, Surry, and Yorktown, seven have no stripe or a short one, and six have a long one. Of 21 specimens from the west side of the Chesapeake at Cove Point, Md., 8 have no stripe or a short one, 13 have a long one. On the Delmarva peninsula, of 29 Maryland specimens 11 have no stripe or a short one, 18 have a long one; of 10 Virginia specimens 4 have no stripe or a short one, 6 have a long stripe.

To sum up: 81% in the upper tidewater Potomac area have no stripe or a short stripe; 41% in other parts of Maryland and Virginia have no stripe or a short one. Carolina material available to me is not very extensive, but it would seem that there only 25% have no stripe or a short stripe, whereas 75% have a long stripe. Reports from further south indicate that 100% long stripe occurs in the far south, especially on the Gulf Coast.

We are, therefore, faced with two opposed populations, obviously different. One occurs in the upper tidewater Potomac; the other occurs in the far south. An intermediate population occurs over a wide area. Unfortunately a somewhat intermediate population, that of the Carolinas, was named first. This seems to be nearer that of the far south, so that *Hyla cinerea cinerea* may be properly applied to specimens of *Hyla cinerea* from the Carolinas south. The name *Hyla cinerea evittata* may be properly applied to the upper tidewater Potomac population. The rest of the Maryland and Virginia populations are, and should be considered, intermediate between *cinerea* and *evittata*.

The most northern locality yet known is the western end of the Chesapeake-Delaware canal in Cecil Co., Md., reported to me by Mr. Joseph Cadbury. It is unknown from Delaware or from the eastern side of the Delmarva peninsula.